

DOCKET NO.: SC11852HP

REMARKS

Claims 1-4, 6-11 and 19 are active in the present application. Independent claims 1, 6 and 19 have been amended. No new matter has been added by the amendments. As the claims are believed to be in condition for allowance, reconsideration and allowance of the claims are respectfully requested.

The present invention provides a semiconductor device having an extended adhesive material layer for attaching an IC die to a base carrier. According to the present invention, extended adhesive material means that the adhesive material extends beyond the edges of the die and such extension is greater than or equal to two times the thickness of the die. See Specification, paragraph [0024]. The Applicants have found that providing such extended adhesive material layer decreases delamination defects. The previous Office Action notes that, although this feature of the invention appears in the specification, it was not expressly claimed.

Independent claims 1, 6 and 19 now have been amended to recite that the adhesive material used to attach the die to the base carrier extends beyond edges of the die a distance greater than about two times a thickness of the die. As discussed above, this language is supported at paragraph [0024] of the specification. Accordingly, no new matter is added by the amendments.

Claims 1-4 stand rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 6,037,677 (Kikuchi et al.). The Office Action makes note of FIGS. 8 and 9. Applicant respectfully traverses the rejection.

As discussed in the response to the first Office Action, whilst FIGS. 8 and 9 of Kikuchi do show adhesive material extending beyond the edges of the die, such additional adhesive

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material only extends over a small portion of the peripheral area of the base carrier top surface. That is, the adhesive material appears to extend a distance beyond the edge of the IC by only about one-third of the thickness of the IC. Since claim 1 now recites this important feature of the invention, claims 1-4 are not anticipated by Kikuchi. Accordingly, Applicants respectfully request that such rejection under §102(b) be withdrawn.

Claims 6-11 stand rejected under 35 U.S.C. §103 as being unpatentable over Kikuchi et al. in view of U.S. Patent Application No. 2002/0182774 (Heckman). The Office Action states that Kikuchi et al. disclose all of the limitations of the claimed invention except for pattern shaping the adhesive material, but Heckman teaches this aspect. Applicants respectfully traverse the rejection.

Independent claim 5 has been amended to recite that the extended adhesive material layer extends beyond edges of the die a distance greater than about two times a thickness of the die. Thus, for the same reasons that claims 1-4 are patentable, claims 6-11 are patentable. Accordingly, reconsideration and withdrawal of the rejection of claims 6-11 is requested.

Finally, claim 19 has been amended so that it no longer recites steps and thus should not be withdrawn from consideration. Claim 19 has been amended in the same way as claims 1 and 6 and is therefore also patentable.

In view of the foregoing remarks, it is respectfully submitted that the present application, including claims 1-4, 6-11 and 19, is in condition for allowance and such action is respectfully solicited.

Please charge any fees associated herewith, including extension of time fees, to 502117, Motorola, Inc.

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Respectfully submitted,

Man Hon Cheng

BY:

Charles E. Bergere

Charles E. Bergere
Reg. No. 36,337
Attorney for Applicant
MOTOROLA INC.

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